

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR2005/000051

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61M5/30

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 102 11 473 A (ROESCH AG MEDIZINTECHNIK I INS) 16 October 2003 (2003-10-16) paragraph '0028! - paragraph '0029!; figures 1,3,4	1-8
X	WO 01/97884 A (ALEXANDRE PATRICK ; BROUQUIERES BERNARD (FR); CROSS SITE TECHNOLOGI) 27 December 2001 (2001-12-27) page 10, line 20 - page 15, line 26; figures 1-3	1-8
X	WO 01/89614 A (HJERTMAN BIRGER ; PHARMACIA AB (SE)) 29 November 2001 (2001-11-29) figures 1A-5	1-8
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

\* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

10 June 2005

Date of mailing of the international search report

20/06/2005

Name and mailing address of the ISA

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NL - 2280 HV Rijswijk  
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Björklund, A

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/FR2005/000051

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/58512 A (ALEXANDRE PATRICK ;BROUQUIERES BERNARD (FR); CROSS SITE TECHNOLOGI) 16 August 2001 (2001-08-16) cited in the application figures 1-5 -----	1-8
A	FR 2 815 544 A (POUDRES & EXPLOSIFS STE NALE) 26 April 2002 (2002-04-26) cited in the application figure 1 -----	1-8

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR2005/000051

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 10211473	A	16-10-2003	DE 10211473 A1	16-10-2003
			DE 20214019 U1	16-01-2003
WO 0197884	A	27-12-2001	FR 2810554 A1	28-12-2001
			AU 6920101 A	02-01-2002
			BR 0111863 A	01-07-2003
			CA 2411814 A1	27-12-2001
			CN 1437489 A	20-08-2003
			EP 1296731 A1	02-04-2003
			WO 0197884 A1	27-12-2001
			HU 0301162 A2	28-10-2003
			JP 2003535654 T	02-12-2003
			MX PA02012219 A	04-06-2003
			PL 359093 A1	23-08-2004
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			US 2003149396 A1	07-08-2003
WO 0189614	A	29-11-2001	AU 6092701 A	03-12-2001
			BR 0110949 A	15-04-2003
			CA 2409091 A1	29-11-2001
			CN 1430524 A ,C	16-07-2003
			CZ 20023824 A3	12-03-2003
			EA 4097 B1	25-12-2003
			EP 1284764 A1	26-02-2003
			HU 0302377 A2	28-10-2003
			JP 2003534062 T	18-11-2003
			NO 20025578 A	21-01-2003
			NZ 522974 A	24-09-2004
			PL 360135 A1	06-09-2004
			WO 0189614 A1	29-11-2001
			TW 500615 B	01-09-2002
			US 2004215149 A1	28-10-2004
			US 2002035348 A1	21-03-2002
WO 0158512	A	16-08-2001	FR 2804869 A1	17-08-2001
			AU 765358 B2	18-09-2003
			AU 3191501 A	20-08-2001
			BR 0108389 A	11-03-2003
			CA 2398552 A1	16-08-2001
			CN 1398191 A ,C	19-02-2003
			EP 1263489 A1	11-12-2002
			WO 0158512 A1	16-08-2001
			HK 1052474 A1	04-03-2005
			HU 0204453 A2	28-03-2003
			JP 2003530147 T	14-10-2003
			MA 25708 A1	01-04-2003
			NO 20023794 A	30-09-2002
			PL 357717 A1	26-07-2004
			RU 2218942 C1	20-12-2003
			UA 69494 C2	15-10-2002
			US 2003050596 A1	13-03-2003
			ZA 200206303 A	16-10-2003
FR 2815544	A	26-04-2002	FR 2815544 A1	26-04-2002
			AT 286412 T	15-01-2005
			AU 1067402 A	06-05-2002
			BR 0114855 A	25-02-2004
			CA 2426700 A1	02-05-2002

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR2005/000051

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2815544	A	CN 1471415 A	28-01-2004
		DE 60108260 D1	10-02-2005
		DK 1330277 T3	09-05-2005
		EP 1330277 A1	30-07-2003
		WO 0234317 A1	02-05-2002
		HU 0301434 A2	29-09-2003
		JP 2004532049 T	21-10-2004
		MA 25840 A1	01-07-2003
		MX PA03003464 A	14-07-2003
		NO 20031788 A	18-06-2003
		PL 362923 A1	02-11-2004
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		UA 72344 C2	15-07-2003
		US 2004015125 A1	22-01-2004
		ZA 200302945 A	21-10-2003

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# RAPPORT DE RECHERCHE INTERNATIONALE

Demanda Internationale No

PCT/FR2005/000051

## A. CLASSEMENT DE L'OBJET DE LA DEMANDE

CIB 7 A61M5/30

Selon la classification internationale des brevets (CIB) ou à la fois selon la classification nationale et la CIB

## B. DOMAINES SUR LESQUELS LA RECHERCHE A PORTE

Documentation minimale consultée (système de classification suivi des symboles de classement)

CIB 7 A61M

Documentation consultée autre que la documentation minimale dans la mesure où ces documents relèvent des domaines sur lesquels a porté la recherche

Base de données électronique consultée au cours de la recherche internationale (nom de la base de données, et si réalisable, termes de recherche utilisés)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERES COMME PERTINENTS

Catégorie *	Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents	no. des revendications visées
X	DE 102 11 473 A (ROESCH AG MEDIZINTECHNIK I INS) 16 octobre 2003 (2003-10-16) alinéa '0028! - alinéa '0029!; figures 1,3,4	1-8
X	WO 01/97884 A (ALEXANDRE PATRICK ; BROUQUIERES BERNARD (FR); CROSS SITE TECHNOLOGI) 27 décembre 2001 (2001-12-27) page 10, ligne 20 - page 15, ligne 26; figures 1-3	1-8
X	WO 01/89614 A (HJERTMAN BIRGER ; PHARMACIA AB (SE)) 29 novembre 2001 (2001-11-29) figures 1A-5	1-8
	----- -/-	

☒ Voir la suite du cadre C pour la fin de la liste des documents

☒ Les documents de familles de brevets sont indiqués en annexe

\* Catégories spéciales de documents cités:

\*A\* document définissant l'état général de la technique, non considéré comme particulièrement pertinent

\*E\* document antérieur, mais publié à la date de dépôt international ou après cette date

\*L\* document pouvant jeter un doute sur une revendication de priorité ou cité pour déterminer la date de publication d'une autre citation ou pour une raison spéciale (telle qu'indiquée)

\*O\* document se référant à une divulgation orale, à un usage, à une exposition ou tous autres moyens

\*P\* document publié avant la date de dépôt international, mais postérieurement à la date de priorité revendiquée

\*T\* document ultérieur publié après la date de dépôt international ou la date de priorité et n'appartenant pas à l'état de la technique pertinent, mais cité pour comprendre le principe ou la théorie constituant la base de l'invention

\*X\* document particulièrement pertinent; l'invention revendiquée ne peut être considérée comme nouvelle ou comme impliquant une activité inventive par rapport au document considéré isolément

\*Y\* document particulièrement pertinent; l'invention revendiquée ne peut être considérée comme impliquant une activité inventive lorsque le document est associé à un ou plusieurs autres documents de même nature, cette combinaison étant évidente pour une personne du métier

\*Z\* document qui fait partie de la même famille de brevets

Date à laquelle la recherche internationale a été effectivement achevée

10 juin 2005

Date d'expédition du présent rapport de recherche internationale

20/06/2005

Nom et adresse postale de l'administration chargée de la recherche internationale

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Fonctionnaire autorisé

Björklund, A

# RAPPORT DE RECHERCHE INTERNATIONALE

Demande Internationale No

PCT/FR2005/000051

C.(suite) DOCUMENTS CONSIDERES COMME PERTINENTS		
Catégorie	Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents	no. des revendications visées
A	WO 01/58512 A (ALEXANDRE PATRICK ; BROUQUIERES BERNARD (FR); CROSS SITE TECHNOLOGI) 16 août 2001 (2001-08-16) cité dans la demande figures 1-5	1-8
A	FR 2 815 544 A (POUDRES & EXPLOSIFS STE NALE) 26 avril 2002 (2002-04-26) cité dans la demande figure 1	1-8

# RAPPORT DE RECHERCHE INTERNATIONALE

Dem. e Internationale No  
PCT/FR2005/000051

Document brevet cité au rapport de recherche		Date de publication	Membre(s) de la famille de brevet(s)	Date de publication
DE 10211473	A	16-10-2003	DE 10211473 A1	16-10-2003
			DE 20214019 U1	16-01-2003
WO 0197884	A	27-12-2001	FR 2810554 A1	28-12-2001
			AU 6920101 A	02-01-2002
			BR 0111863 A	01-07-2003
			CA 2411814 A1	27-12-2001
			CN 1437489 A	20-08-2003
			EP 1296731 A1	02-04-2003
			WO 0197884 A1	27-12-2001
			HU 0301162 A2	28-10-2003
			JP 2003535654 T	02-12-2003
			MX PA02012219 A	04-06-2003
			PL 359093 A1	23-08-2004
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WO 0189614	A	29-11-2001	AU 6092701 A	03-12-2001
			BR 0110949 A	15-04-2003
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			EA 4097 B1	25-12-2003
			EP 1284764 A1	26-02-2003
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			JP 2003534062 T	18-11-2003
			NO 20025578 A	21-01-2003
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			PL 360135 A1	06-09-2004
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			TW 500615 B	01-09-2002
			US 2004215149 A1	28-10-2004
			US 2002035348 A1	21-03-2002
WO 0158512	A	16-08-2001	FR 2804869 A1	17-08-2001
			AU 765358 B2	18-09-2003
			AU 3191501 A	20-08-2001
			BR 0108389 A	11-03-2003
			CA 2398552 A1	16-08-2001
			CN 1398191 A ,C	19-02-2003
			EP 1263489 A1	11-12-2002
			WO 0158512 A1	16-08-2001
			HK 1052474 A1	04-03-2005
			HU 0204453 A2	28-03-2003
			JP 2003530147 T	14-10-2003
			MA 25708 A1	01-04-2003
			NO 20023794 A	30-09-2002
			PL 357717 A1	26-07-2004
			RU 2218942 C1	20-12-2003
			UA 69494 C2	15-10-2002
			US 2003050596 A1	13-03-2003
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FR 2815544	A	26-04-2002	FR 2815544 A1	26-04-2002
			AT 286412 T	15-01-2005
			AU 1067402 A	06-05-2002
			BR 0114855 A	25-02-2004
			CA 2426700 A1	02-05-2002

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Demande Internationale No

PCT/FR2005/000051

Document brevet cité au rapport de recherche	Date de publication	Membre(s) de la famille de brevet(s)	Date de publication
FR 2815544 A		CN 1471415 A	28-01-2004
		DE 60108260 D1	10-02-2005
		DK 1330277 T3	09-05-2005
		EP 1330277 A1	30-07-2003
		WO 0234317 A1	02-05-2002
		HU 0301434 A2	29-09-2003
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		MA 25840 A1	01-07-2003
		MX PA03003464 A	14-07-2003
		NO 20031788 A	18-06-2003
		PL 362923 A1	02-11-2004
		RU 2240834 C1	27-11-2004
		UA 72344 C2	15-07-2003
		US 2004015125 A1	22-01-2004
		ZA 200302945 A	21-10-2003



10/585574

TRANSLATION

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>535/SME/PI</b>	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. <b>PCT/FR2005/000051</b>	International filing date (day/month/year) <b>11.01.2005</b>	Priority date (day/month/year) <b>27.01.2004</b>
International Patent Classification (IPC) or national classification and IPC <b>A61M5/30</b>		
Applicant <b>CROSSJECT</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2005/000051

Box No. I	Basis of the report
1.	<p>With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:</p> <p><input type="checkbox"/> international search (Rule 12.3 and 23.1(b))</p> <p><input type="checkbox"/> publication of the international application (Rule 12.4)</p> <p><input type="checkbox"/> international preliminary examination (Rule 55.2 and/or 55.3)</p> <p>2. With regard to the elements of the international application, this report is based on <i>(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)</i>:</p> <p><input type="checkbox"/> the international application as originally filed/furnished</p> <p><input checked="" type="checkbox"/> the description:</p> <p>pages <u>1-15</u> as originally filed/furnished</p> <p>pages* _____ received by this Authority on _____</p> <p>pages* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the claims:</p> <p>nos. _____ as originally filed/furnished</p> <p>nos.* _____ as amended (together with any statement) under Article 19</p> <p>nos.* <u>1-8</u> received by this Authority on <u>28.09.2005 with letter of 26.09.2005</u></p> <p>nos.* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the drawings:</p> <p>sheets <u>1/2, 2/2</u> as originally filed/furnished</p> <p>sheets* _____ received by this Authority on _____</p> <p>sheets* _____ received by this Authority on _____</p> <p><input type="checkbox"/> a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.</p> <p>3. <input type="checkbox"/> The amendments have resulted in the cancellation of:</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (specify): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p> <p>4. <input type="checkbox"/> This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (specify): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p>

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2005/000051

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)

Claims \_\_\_\_\_ YES  
 Claims 1-8 \_\_\_\_\_ NO

Inventive step (IS)

Claims \_\_\_\_\_ YES  
 Claims 1-8 \_\_\_\_\_ NO

Industrial applicability (IA)

Claims 1-8 \_\_\_\_\_ YES  
 Claims \_\_\_\_\_ NO

## 2. Citations and explanations (Rule 70.7)

## 1. Reference is made to the following documents:

- D1: DE 102 11 473 A (ROESCH AG MEDIZINTECHNIK I  
 INS) 16 October 2003 (2003-10-16)
- D2: WO 01/97884 A (ALEXANDRE PATRICK; BROUQUIERES  
 BERNARD (FR); CROSS SITE TECHNOLOGI) 27  
 December 2001 (2001-12-27)
- D3: WO 01/89614 A (HJERTMAN BIRGER; PHARMACIA AB  
 (SE)) 29 November 2001 (2001-11-29)
- D4: WO 01/58512 A (ALEXANDRE PATRICK; BROUQUIERES  
 BERNARD (FR); CROSS SITE TECHNOLOGI) 16  
 August 2001 (2001-08-16)
- D5: FR-A-2 815 544 (POUDRES & EXPLOSIFS STE NALE)  
 26 April 2002 (2002-04-26)

The present application fails to meet the requirements of PCT Article 33(1), since the subject matter of claims 1 to 8 does not comply with the criterion of novelty as defined by PCT Article 33(2).

- 2.1 D1 describes (the references between parentheses apply to said document):  
 a needleless syringe (figures 1 to 4) that

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>comprises a body housing a cylindrical container (2) closed by a moveable upstream stopper (10) and a moveable downstream stopper (11) in which an active principle (9) is enclosed, and further comprises, downstream, a receptacle (18) with at least one peripheral injection duct (17); said receptacle abuts the container and includes a bore (18) in which the downstream stopper is housed when it is brought into contact with the bottom of the bore of said receptacle by the operation of a drive means (3, 5 and 7) for moving the upstream stopper/liquid/downstream stopper assembly; the side wall of the bore comprises at least one projection that forms a constriction relative to the upstream opening of the bore (23, [0008]) and the peripheral duct includes a radial portion communicating with the bore. (When the downstream stopper 11 is located in the bore 18, peripheral ducts are formed between the walls of the bore 18 and the stopper 11 by virtue of the projections 23 (see figure 3, [0028]); said peripheral ducts must inevitably be linked to the outlet 17 and thus necessarily include radial portions downstream of the stopper 11. Said radial portions communicate with the bore).</p> <p>The subject matter of claim 1 is therefore not novel (PCT Article 33(2)).</p> <p>2.3 Note that a duct placed at the bottom of the receptacle is also peripheral, and is therefore included in the subject matter of claim 1.</p>

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

- 2.4 The applicant's arguments according to which claims 1 to 8 meet the requirements of PCT Article 33(1) are not convincing, because the definition of the peripheral duct is not sufficient to differentiate it from the peripheral duct of D1.
3. In the light of D1 to D5 and the corresponding passages cited in the international search report, dependent claims 2 to 8 contain no feature which, when combined with the features of any one of the claims to which they refer, defines subject matter that complies with the PCT requirements of novelty and/or inventive step, because they merely define trivial design options known to a person skilled in the art.
4. Note that, if the peripheral duct in claim 1 were defined in a more precise manner enabling it to be differentiated from the duct of D1, such a claim would probably meet the requirements of PCT Article 33(1).

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

D1, which describes the prior art, has not been mentioned  
in the description (PCT Rule 5.1(a)(ii)).